2. On *Pachybatrachus robustus*, a New Genus of Anurous Batrachians. By St. George Mivart, F.L.S., Lecturer on Comparative Anatomy at St. Mary's Hospital.

In examining at the British Museum the Anurous Batrachians of my own collection, in order to name them correctly, I discovered that the specimen here described was of a kind not present in the collection, that it was also of a kind unknown to Dr. Günther, and, finally, that, as I believe, the form is hitherto undescribed.

It appears to me to constitute a new genus, for which I propose the name *Pachybatrachus*, and *robustus* as its specific appellation.

According to the system of classification devised by Dr. Günther it must be placed in his *Ranidæ*, where its cleft tongue, webbed toes, and edentulous palate and normally placed digits approximate it to *Dicroglossus* and *Phrynobatrachus*. It differs from both these genera, however, in its very different habit, its larger size, relatively as well as absolutely much larger and broader head and mouth, its smooth skin and large tympanum. Its toes are less completely and largely webbed than in *Dicroglossus*, while they are more so than is the case in *Phrynobatrachus*.

The head of *Pachybatrachus robustus* is very large and broad; the snout is somewhat longer than the eye; the canthus rostralis is not much marked; the anterior end of the muzzle is rounded but not insignificant in vertical extent, and the loreal region is nearly vertical. The eye is rather large, and the upper eyelid is so marked transversely as at first to have somewhat the appearance of being free and notched behind, as in *Megalixalus**; but it is really entire, and is not furnished with any process. The tympanum is very large, its transverse diameter nearly equalling that of the aperture of the eye. The crown of the head is nearly flat. When the head is looked at from below, the upper jaw is seen to project forwards somewhat beyond the anterior extremity of the mandible; and the two rami of the latter diverge at an angle of about 60°.

There is a slight symphysial tubercle, but the outer margin of each of the notches which define it can hardly be said to rise into a distinct apophysis.

The external nostrils are moderate and situated at about the posterior end of the anterior third of a line drawn from the end of the snout to the anterior end of the eye.

There are no teeth in the lower jaw; but a range of small teeth runs along the maxillary border. The palate is absolutely edentulous. The choanæ are rather large, and the openings of the eustachian tubes are of nearly the same dimensions.

The tongue is well developed, and nearly its hinder half is free; it is distinctly notched, or rather the fleshy processes project from its hinder margin, each about 0·1 inch in length. There is no fold beneath the throat or across the chest; but a prominent line (a glandular fold) extends backwards, from the hinder angle of the eye-

* Dr. Günther, Proc. Zool. Soc. 1868, p. 485.

aperture, immediately above the tympanum; there it bifurcates, one branch descending obliquely downwards and backwards behind the tympanum to the root of the pectoral limb, the other branch passing backwards along the whole length of the side of the back to the lateral margin of the anus.

A. *Pachybatrachus robustus*, nat. size. B. Interior of mouth of ditto.

All the digits of both limbs have their extremities somewhat enlarged, and there are subarticular tubercles. The fingers are very well developed and quite free. They are normally disposed, neither the first two nor the first alone being opposite the others; the third is the longest, then the first and fourth, which are of nearly the same length; the second finger is the shortest. When the limb is turned backwards the longest digit attains the posterior margin of the middle of the body. There is a considerable prominence on the palm at

the root of the first finger. The pelvic limb, though elongated, as in all Frogs of ranoid habit, is yet remarkable for its short tarsus, which does not quite equal half the length of the tibia.

The toes are well webbed, the membrane extending nearly to the ends of the digits, but nevertheless being strongly emarginated. There is no shovel, but a very small yet distinct tubercle at the base of the first toe, and a scarcely noticeable rudiment of a second tubercle at the base of the fourth toe. There are no other tarsal tubercles whatever. The skin over the whole body is smooth, with numerous flat warts on the undersides of the thighs. The cephalic derm is not ossified. The colour of the specimen is now dark brown above, lighter beneath. A black line extends along each side of the back from the eye to the anus; and there are black markings on the limbs, and indications of spots in the middle of the back. Unfortunately, I have no knowledge from what part of the world the individual here described was obtained.

	inches.
Extreme length from end of snout to anus	2·45
Length from end of muzzle to anterior angle of eye	·38
Breadth between the eyes (their anterior angles)	·53
Length of the aperture of the eye	·30
Antero-posterior diameter of the tympanum	·27
Vertical diameter of the tympanum	·27
Breadth between the two posterior angles of the mouth	·96
Length from symphysis to mid point between said angles	·79
——— from shoulder to elbow	·47
——— from elbow to carpus	·58
Extreme length of pectoral limb	1·58
Length of first digit	·35
——— of second digit	·27
——— of third digit	·48
——— of fourth digit	·32
——— from groin to knee	·96
——— of tibia	1·10
——— of tarsus	·53
——— of first toe	·22
——— of second toe	·30
——— of third toe	·50
——— of fourth toe	·74
——— of fifth toe	·47

The generic and specific characters will be as follews:—

PACHYBATRACHUS, g. n. RANIDARUM.

No digital disks; maxillary teeth, but no vomerine teeth; sacral vertebra not dilated; no parotoids or lumbar glands, but a glandular fold on each side of the body; fingers quite free, and normally disposed; toes webbed; one small tarsal tubercle at base of first toe, and a minute rudiment at the base of fourth toe; tarsus less than half the length of tibia; tongue deeply notched, and free behind;

tympanum very large, but not very distinct; eustachian tubes moderate.

PACHYBATRACHUS ROBUSTUS.

Head large and broad, snout slightly longer than the eye, and the loreal region nearly vertical. Eye large, tympanum very large. Digits with their extremities rounded and with subarticular tubercles. Skin entirely smooth. A glandular fold extending from the eye to the anus, and sending down a branch behind the tympanum. Upper parts dark brown; glandular fold, tarsus, tibia, arm, and middle of back with black markings. Under parts lighter, and free from black markings. Transverse light markings on the hinder part of each upper eyelid.

The typical specimen has been deposited in the national collection.

3. Note on the Bottlenosed Whales (*Tursio*).

By Dr. J. E. GRAY, F.R.S., V.P.Z.S., &c.

A short time ago the British Museum received three skeletons and a skull of the Bottlenosed Dolphin (*Tursio truncatus*), which were obtained from one school by Edward Gerrard, jun., in the Firth of Forth. They show the very great change that takes place in the form of the skull, and especially of the beak, during the growth of the animal.

The beak of the skull of the young animal is regular, conical, tapering and contracted in front. The skull is $17\frac{1}{2}$ inches long, with the beak, from the notch, $9\frac{1}{2}$ inches, and the teeth-line, by the callipers, 8 inches. The teeth are small, conical, acute, three and one-half in an inch.

The skull of a full-grown female is similar but larger than that of the young animal.

There is another skull of a full-grown animal of the same school, but its sex was not determined. It is very like that of the female, but rather larger.

The skull of the very old male animal (fig. 1, p. 561) is much thickened; but the great peculiarity is that the beak is broad and flattened, and very much expanded, flattened, and curved up at the tip in front, and as if part of the beak in front had been absorbed. The teeth have nearly all fallen out, and there is only one left, which is spread out towards the edges and flattened, and evidently would have fallen out in a very short time. The intermaxillary and palatine bones are visible nearly to the back part of the palate of the beak. The length of the skull is $20\frac{1}{2}$ inches, of the beak, from the notch, $11\frac{1}{2}$, of the teeth-line $9\frac{1}{2}$. Width of the brain-case at eyebrows $11\frac{1}{2}$, of beak at notch 6, in middle (or tenth tooth) $4\frac{1}{4}$.

There is a considerable difference in the form of the pterygoid bones and of the sheath of the hinder nasal opening in these four